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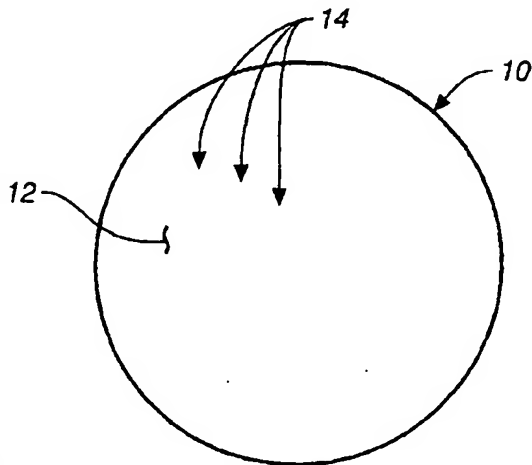
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(54) Title: TARGET ANALYTE SENSORS UTILIZING MICROSPHERES



(57) Abstract: A microsphere-based analytic chemistry system and method for making the same is disclosed in which microspheres or particles carrying bioactive agents may be combined randomly or in ordered fashion and dispersed on a substrate to form an array while maintaining the ability to identify the location of bioactive agents and particles within the array using an optically interrogatable, optical signature encoding scheme. A wide variety of modified substrates may be employed which provide either discrete or non-discrete sites for accommodating the microspheres in either random or patterned distributions. The substrates may be constructed from a variety of materials to form either two-dimensional or three-dimensional configurations. In a preferred embodiment, a modified fiber optic bundle or array is employed as a substrate to produce a high density array. The disclosed system and method have utility for detecting target analytes and screening large libraries of bioactive agent.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01N33/543 G01N33/58 G01N33/573 C12Q1/68 C12Q1/25

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	WO 98 40726 A (TRUSTEES TUFTS COLLEGE) 17 September 1998 (1998-09-17) abstract; claims 1-18 ---	1-12
A	WO 97 14028 A (LUMINEX CORP) 17 April 1997 (1997-04-17) abstract; claims 1,2 ---	1-10,13
A	WO 93 02360 A (TRANSMED BIOTECH INC) 4 February 1993 (1993-02-04) claims ---	1-12
A	US 5 028 545 A (SOINI ERKKI J) 2 July 1991 (1991-07-02) abstract; claim -----	1-12

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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ANHANG

Zum internationalen Recherchenbericht über die internationale Patentanmeldung Nr.

ANNEX

To the International Search Report to the international Patent Application No.

ANNEXE

Au rapport de recherche international relatif à la demande de brevet international n°

PCT/US 99/20914 SAE 249151

In diesem Anhang sind die Mitglieder der Patentfamilien der im obengenannten internationalen Recherchenbericht angeführten Patentdokumente angegeben. Diese Angaben dienen nur zur Unterrichtung und erfolgen ohne Gewähr.

This annex lists the patent family members relating to the patent documents cited in the above-mentioned search report. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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Im Recherchenbericht angeführte Patentdokumente Patent document cited in search report Document de brevet cité dans le rapport de recherche	Datum der Veröffentlichung Publication date Date de publication	Mitglied(er) der Patentfamilie Patent family member(s) Membre(s) de la famille de brevets	Datum der Veröffentlichung Publication date Date de publication
WO A1 9840726	17-09-1998	AU A1 64648/98	29-09-1998
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